

Wisconsin Petroleum Use, by Economic Sector

1970-2011 TRILLIONS OF BTU AND PERCENT OF TOTAL

Year	Residential		Commercial		Industrial		Agricultural ^a		Transportation ^b		Electric Utility		Total	Total End Use
1970	107.9	23.6%	31.5	6.9%	21.1	4.6%	18.1	4.0%	271.2	59.3%	7.9	1.7%	457.7	449.8
1975	87.6	18.4%	27.5	5.8%	19.3	4.1%	18.8	4.0%	314.0	66.1%	7.8	1.6%	475.0	467.2
1980	71.2	15.7%	14.6	3.2%	13.2	2.9%	21.4	4.7%	329.2	72.4%	4.8	1.1%	454.4	449.6
1985 ^c	54.2	13.0%	22.3	5.4%	4.4	1.1%	19.3	4.6%	314.4	75.6%	1.4	0.3%	416.0	414.6
1990 ^c	47.9	10.9%	17.6	4.0%	11.2	2.5%	16.0	3.6%	346.6	78.7%	1.0	0.2%	440.3	439.4
1995 ^c	42.0	9.0%	11.3	2.4%	13.8	3.0%	15.6	3.3%	383.6	82.1%	0.8	0.2%	467.2	466.3
1996 ^c	44.5	9.2%	11.7	2.4%	16.6	3.4%	16.0	3.3%	392.9	81.4%	0.9	0.2%	482.6	481.7
1997 ^c	39.8	8.1%	13.1	2.7%	17.6	3.6%	15.3	3.1%	401.6	82.1%	1.5	0.3%	489.0	487.4
1998 ^c	34.8	7.1%	14.4	2.9%	16.3	3.3%	14.5	2.9%	411.3	83.4%	1.8	0.4%	493.0	491.2
1999 ^c	39.1	7.6%	14.7	2.9%	18.7	3.7%	15.2	3.0%	422.2	82.5%	2.0	0.4%	511.9	509.9
2000 ^c	38.8	7.7%	14.0	2.8%	17.2	3.4%	14.6	2.9%	416.1	82.8%	1.6	0.3%	502.2	500.7
2001 ^c	39.4	7.8%	14.7	2.9%	16.0	3.2%	14.2	2.8%	417.5	82.8%	2.2	0.4%	504.0	501.8
2002 ^c	37.6	7.3%	14.3	2.8%	14.8	2.9%	14.5	2.8%	430.1	83.9%	1.5	0.3%	512.9	511.3
2003 ^c	37.3	7.3%	15.6	3.0%	14.4	2.8%	14.6	2.8%	430.3	83.7%	1.8	0.3%	514.0	512.2
2004 ^c	36.6	7.0%	13.6	2.6%	16.4	3.2%	14.3	2.7%	438.7	84.1%	1.8	0.3%	521.4	519.6
2005 ^c	34.4	6.9%	13.3	2.7%	18.2	3.6%	13.5	2.7%	418.5	83.7%	1.9	0.4%	499.8	498.0
2006 ^c	35.3	7.1%	10.5	2.1%	16.5	3.3%	17.2	3.5%	413.3	83.6%	1.5	0.3%	494.3	492.7
2007 ^c	32.8	6.6%	10.7	2.2%	17.4	3.5%	19.0	3.8%	415.4	83.5%	1.9	0.4%	497.2	495.3
2008 ^c	33.4	7.0%	12.2	2.6%	13.7	2.9%	17.9	3.7%	399.9	83.6%	1.1	0.2%	478.1	477.1
2009 ^c	29.4	6.5%	10.5	2.3%	7.5	1.7%	21.6	4.8%	381.0	84.6%	0.6	0.1%	450.6	450.0
2010 ^c	25.5	5.6%	8.0	1.7%	5.1	1.1%	18.5	4.1%	397.8	87.4%	0.5	0.1%	455.4	454.8
2011 ^p	24.3	5.4%	8.8	2.0%	4.8	1.1%	20.1	4.5%	390.2	87.0%	0.5	0.1%	448.6	448.1

OVERALL
PETROLEUM
USE
1.5%

Overall petroleum use measured in British thermal units (Btu) decreased 1.5 percent in 2011. Eighty-seven percent of the petroleum used in Wisconsin was for transportation, which saw a decrease of 1.9 percent.

Agriculture sector numbers do not include agricultural processing plants; these are classified in the commercial sector.

^a In 2005, the SEO discontinued a per-acre approach to gathering fuel data for the agriculture sector and substituted data from the Wisconsin Department of Revenue and the federal National Agriculture Statistics Service (NASS). Data from NASS were not available previous to 2005.

^b These figures do not include any ethanol. In 2011 these figures were historically revised to remove ethanol.

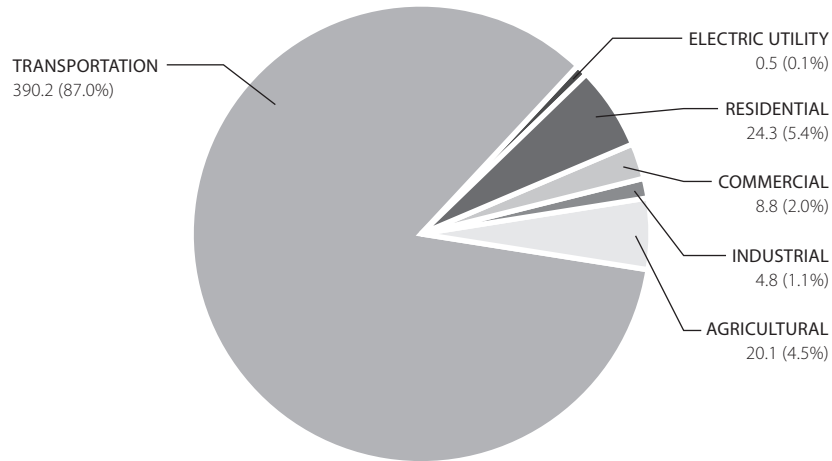
^p Preliminary estimates.

^r Revised.

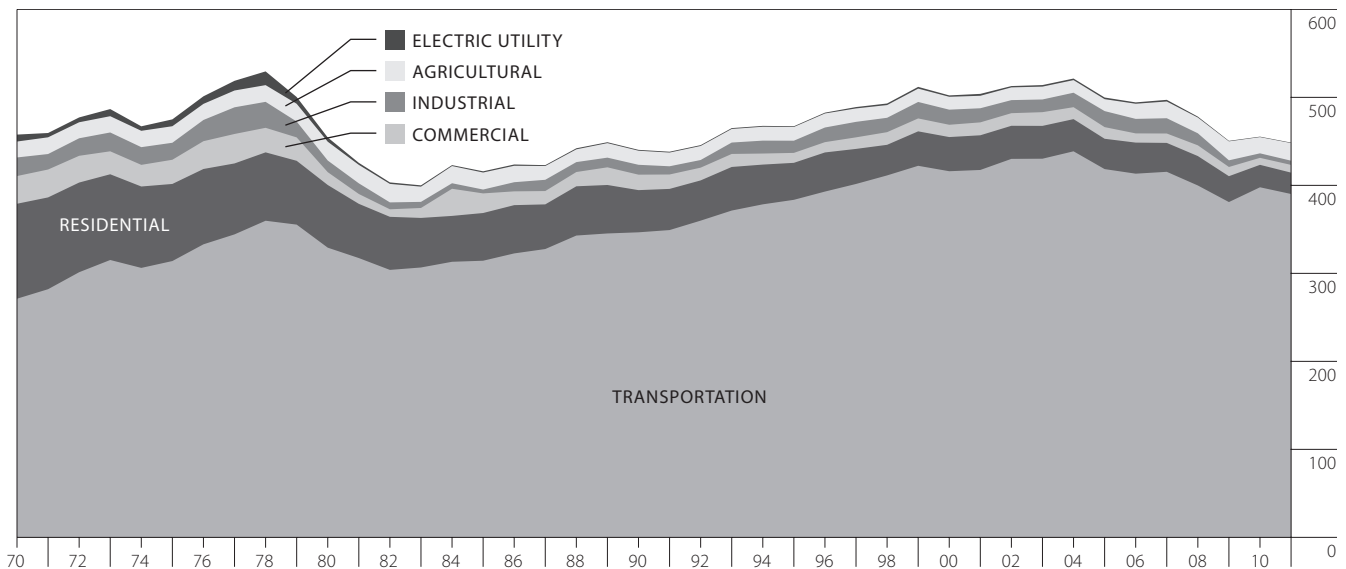
Source: Wisconsin Department of Commerce, Bureau of Petroleum Inspection, *Report on Petroleum Products Inspected and Delivered to Wisconsin* (1970-1995); Wisconsin Department of Revenue, *Collection of Petroleum Inspection Fees* (1996-2006) and *Fuel Tax Statistical Report* (1996-2011); State Energy Office phone and email surveys of airport fixed base operators (2000-2009) and railways (2000-2011); US Department of Energy, Form EIA-782C, *Monthly Report of Petroleum Products Sold into States for Consumption* (1983-2007); US Department of Energy, Form EIA-821 (2003-2011); unpublished data from the National Agriculture Statistics Service (2005-2011).

Wisconsin Petroleum Use, by Economic Sector

2011 TRILLIONS OF BTU AND PERCENT OF TOTAL



1970-2011 TRILLIONS OF BTU



Source: Wisconsin State Energy Office.

Wisconsin Petroleum Use, in Btu, by Type of Product

1970-2011 TRILLIONS OF BTU

Year	Gasoline ^{a,b}	Jet Fuel	Light Distillate	Middle Distillate	Residual Fuel Oil	LPG ^c	Total
1970	244.1	7.7	35.1	123.4	21.9	25.7	457.9
1975	275.4	9.8	16.9	133.5	13.3	26.0	474.9
1980	271.3	11.0	11.3	124.7	11.0	25.2	454.5
1985 ^r	254.2	8.4	14.0	114.7	1.6	23.1	415.9
1990 ^r	267.4	11.0	10.9	120.0	6.1	24.8	440.3
1995 ^r	283.3	10.6	11.1	126.7	4.5	30.9	467.2
1996 ^r	290.0	11.1	12.1	129.6	5.8	34.2	482.6
1997 ^r	294.7	11.3	12.8	132.1	6.2	31.8	489.0
1998 ^r	301.3	11.5	13.0	133.5	6.5	27.3	493.0
1999 ^r	309.2	11.8	13.8	140.0	7.7	29.4	511.9
2000 ^r	303.9	11.7	12.9	136.6	6.8	30.3	502.2
2001 ^r	306.3	11.5	12.9	137.2	7.0	29.2	504.0
2002 ^r	316.7	11.9	12.4	134.7	7.1	30.0	512.9
2003 ^r	318.6	11.6	12.0	138.1	5.9	27.7	514.0
2004 ^r	319.4	12.5	12.5	141.7	6.9	28.3	521.4
2005 ^r	309.3	14.3	11.4	128.7	8.6	27.5	499.8
2006 ^r	299.2	13.9	11.4	133.0	5.1	31.8	494.3
2007 ^r	304.3	12.8	10.3	133.7	4.8	31.3	497.2
2008 ^r	287.9	13.8	10.6	130.7	3.9	31.2	478.1
2009 ^r	285.5	11.8	9.0	109.7	1.3	33.2	450.6
2010 ^r	291.9	13.1	9.5	111.9	0.6	28.4	455.3
2011 ^p	288.7	11.3	9.0	111.6	0.7	27.2	448.6

Middle distillate, which decreased by 0.3 percent since 2010, is used both as a heating fuel in furnaces and boilers, and as diesel fuel in trucks. Light distillate, which decreased by 5.0 percent since 2010, includes kerosene and is primarily used as a thinner during periods of cold weather.

^a Includes both vehicle and aviation gasoline.

^b Does not include ethanol. In 2011 these figures were historically revised to remove ethanol. Ethanol use in motor gasoline is shown in the Renewable Energy chapter and later in this chapter.

^c Liquefied petroleum gas (propane).

^p Preliminary estimates.

^r Revised.

Source: Wisconsin Department of Commerce, Bureau of Petroleum Inspection, *Report on Petroleum Products Inspected and Delivered to Wisconsin* (1970-1995); Wisconsin Department of Revenue, *Collection of Petroleum Inspection Fees* (1996-2006) and *Fuel Tax Statistical Report* (1996-2011); U.S. Department of Energy, Form EIA-782C, *Monthly Report of Petroleum Products Sold into States for Consumption* http://www.eia.gov/oil_gas/petroleum/data_publications/prime_supplier_report/psr.html. (1983-2011); WI State Energy Office telephone and email surveys of airport fixed base operators (2000-2009) and railways (2000-2011); unpublished expenditure data from the National Agriculture Statistics Service (2005-2011).

Wisconsin Petroleum Use, in Gallons, by Type of Product

GASOLINE
USE**1.1%**

JET FUEL

13.7%

LP USE

4.0%

In 2011, gasoline use decreased by 1.1 percent, jet fuel decreased by 13.7 percent, and LP use decreased by 4.0 percent.

1970-2011 MILLIONS OF GALLONS

Year	Gasoline ^{a,b}	Jet Fuel	Light Distillate	Middle Distillate	Residual Fuel Oil	LPG ^c	Total
1970	1,953.0	56.7	260.2	889.7	146.2	269.0	3,574.8
1975	2,203.5	72.4	125.0	962.8	88.8	272.6	3,725.1
1980	2,170.5	81.4	83.4	899.4	73.5	264.1	3,572.3
1985 ^r	2,033.3	62.2	103.7	826.9	10.8	241.5	3,278.4
1990 ^r	2,139.5	81.6	81.0	864.9	40.7	260.2	3,467.9
1995 ^r	2,266.6	78.6	82.0	913.7	30.3	323.8	3,694.9
1996 ^r	2,319.8	82.0	89.4	934.2	38.7	357.9	3,821.9
1997 ^r	2,357.4	84.0	95.1	952.6	41.7	332.9	3,863.6
1998 ^r	2,410.3	85.0	96.0	962.6	43.5	285.9	3,883.4
1999 ^r	2,473.7	87.4	102.5	1,009.5	51.4	307.7	4,032.2
2000 ^r	2,431.2	87.0	95.7	984.6	45.5	317.5	3,961.4
2001 ^r	2,450.2	85.0	95.3	988.9	46.6	306.1	3,972.0
2002 ^r	2,533.7	88.2	91.9	971.2	47.3	314.7	4,047.0
2003 ^r	2,549.0	86.1	88.7	995.8	39.7	290.0	4,049.4
2004 ^r	2,555.6	92.5	92.3	1,021.9	46.3	296.9	4,105.4
2005 ^r	2,474.6	105.7	84.6	928.1	57.4	288.4	3,938.7
2006 ^r	2,393.6	102.9	84.1	959.0	34.1	332.6	3,906.2
2007 ^r	2,434.2	94.6	76.6	963.9	32.1	328.1	3,929.4
2008 ^r	2,303.5	102.4	78.6	942.0	25.8	327.1	3,779.5
2009 ^r	2,284.2	87.0	66.7	791.0	9.0	348.2	3,586.1
2010 ^r	2,334.8	97.0	70.5	807.1	3.9	297.2	3,610.5
2011 ^p	2,309.8	83.7	66.9	804.7	4.5	285.4	3,555.0

^a Includes both vehicle and aviation gasoline.

^b Does not include the ethanol. In 2011, these numbers were historically revised to remove all ethanol. Ethanol use in motor gasoline is shown in the Renewable Energy chapter and later in this chapter.

^c Liquefied petroleum gas (propane).

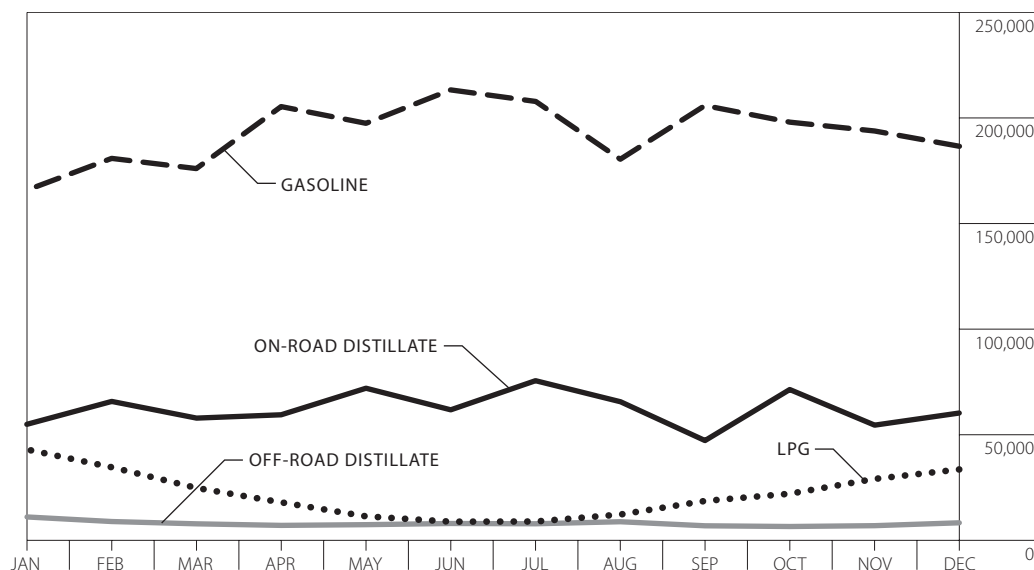
^p Preliminary estimates.

^r Revised.

Source: Wisconsin Department of Commerce, Bureau of Petroleum Inspection, *Report on Petroleum Products Inspected and Delivered to Wisconsin* (1970-1995); Wisconsin Department of Revenue, *Collection of Petroleum Inspection Fees* (1996-2006) and *Fuel Tax Statistical Report* (1996-2011); U.S. Department of Energy Form EIA-782C, *Monthly Report of Petroleum Products Sold into States for Consumption* (1983-2011) http://www.eia.gov/oil_gas/petroleum/data_publications/prime_supplier_report/psr.html; WI State Energy Office telephone and email surveys of airport fixed base operators (2000-2009) and railways (2000-2011); unpublished data from the National Agriculture Statistics Service (2005-2011).

Petroleum Product Deliveries to Wisconsin, by Month

2011 THOUSANDS OF GALLONS



In general, gasoline sales peaked during the summer vacation months, while deliveries of fuels used for heating (off-road distillate and LPG) peaked during winter months.

Figures will not match the consumption figures in earlier pages in this chapter because deliveries do not always translate to sales during the same time frame.

A map of Wisconsin's petroleum pipelines can be found in the Map Appendix at the back of the book.

Month	Off-Road Distillate ^a	On-Road Distillate ^b	LPG ^c	Gasoline ^d
January	10,751	54,621	42,675	165,501
February	8,588	65,447	34,278	180,523
March	7,502	57,555	24,481	175,690
April	6,762	59,135	17,664	205,039
May	7,102	71,690	11,042	197,128
June	7,659	61,466	8,520	212,952
July	7,524	75,260	8,603	207,492
August	8,491	65,312	11,910	180,069
September	6,570	46,888	18,333	205,532
October	6,231	71,046	21,750	197,684
November	6,624	54,213	28,764	193,503
December	7,989	59,963	33,254	186,268
Total	91,792	742,596	261,272	2,307,382

^a Kerosene, No. 1 and No. 2 fuel oil used for heating and processing, jet fuel and aviation gasoline used for flying. Does not include non-taxed diesel fuel used on farms.

^b On-road diesel fuel sales in Wisconsin.

^c Liquefied petroleum gas (propane) deliveries.

^d Vehicle gasoline sales; does not include aviation gasoline or ethanol.

Source: Wisconsin Department of Revenue, *Monthly Motor Fuel Consumption Report* (2008-2011); U.S. Department of Energy, Form EIA-782C, *Monthly Report of Petroleum Products Sold into States for Consumption* (2011)
http://www.eia.gov/oil_gas/petroleum/data_publications/prime_supplier_report/psr.html.

Wisconsin Production and Use of Ethanol in Reformulated Gasoline, E10 and E85

ETHANOL
PRODUCTION
13.3%

In 2011, Wisconsin ethanol production increased 13.3 percent. Ethanol use in Wisconsin decreased 11.1 percent with decreased consumption of RFG (1.3 percent), E10 (15.3 percent) and E85 (18.3 percent).

The decreased consumption of ethanol in Wisconsin in 2011 is related to a number of factors, including: the sunset of a per-gallon tax credit (valued at \$0.45/gallon) for producers and distributors, and increased prices for corn feedstock due to the drought.

Ethanol is one of the few energy sources that Wisconsin exports.

1994-2011 THOUSANDS OF GALLONS

Year	Production	Consumption			Total
		RFG ^a	E10 ^b	E85 ^c	
1994	NA	NA	13,331	9	13,340
1995	NA	38,048	10,461	17	48,526
1996	NA	49,784	6,973	36	56,793
1997	NA	49,460	8,012	54	57,526
1998	NA	66,571	4,877	58	71,506
1999	NA	67,400	7,937	63	75,400
2000	NA	70,724	23,080	43	93,847
2001	NA	67,449	18,458	32	85,939
2002	15,529	71,152	17,026	48	88,226
2003	76,947	77,302	23,536	86	100,924
2004	106,886	74,816	27,617	106	102,539
2005	171,764	73,046	49,191	723	122,960
2006	210,386	77,614	50,498	2,302	130,414
2007	283,873	69,963	86,472	4,800	161,235
2008	447,388	68,047	143,849	5,100	216,996
2009	462,022	74,142	150,347	5,200	229,689
2010	438,260	77,968	174,399	2,995	255,362
2011	496,366	76,927	147,704	2,447	227,078

^a RFG is reformulated gasoline. Starting January 1, 1995, the federal government mandated its sale in six southeastern Wisconsin counties to comply with the Clean Air Act. Ethanol is used to provide the oxygenate required in RFG.

^b E10 is a motor fuel blend consisting of 10 percent ethanol and 90 percent conventional gasoline (non RFG).

^c E85 is a motor fuel consisting of 85 percent ethanol and 15 percent gasoline.

^p Preliminary.

^r Revised.

NA – Not Available.

Source: Wisconsin Department of Revenue; Wisconsin State Energy Office survey of E85 distributors; U.S. Department of Energy, Form EIA-782C, *Monthly Report of Petroleum Products Sold into States for Consumption* (2011)
http://www.eia.gov/oil_gas/petroleum/data_publications/prime_supplier_report/psr.html.

Wisconsin Liquefied Petroleum Gas Use, by Economic Sector

1970-2011 MILLIONS OF GALLONS AND PERCENT OF TOTAL

Year	Residential		Commercial		Industrial		Agricultural ^a		Transportation		Total
1970	190.9	70.9%	23.8	8.8%	28.2	10.5%	26.2	9.7%	NA	0.0%	269.1
1975	176.5	64.7%	36.5	13.4%	29.5	10.8%	30.1	11.0%	NA	0.0%	272.6
1980	176.3	66.7%	33.5	12.7%	17.5	6.6%	36.9	14.0%	NA	0.0%	264.2
1985 ^r	158.2	65.5%	29.4	12.2%	19.3	8.0%	34.6	14.3%	NA	0.0%	241.5
1990 ^r	162.1	62.3%	36.5	14.0%	35.7	13.7%	25.9	10.0%	NA	0.0%	260.2
1995 ^r	203.8	62.9%	48.0	14.8%	35.0	10.8%	30.9	9.5%	6.1	1.9%	323.8
1996 ^r	219.5	61.3%	51.7	14.5%	43.9	12.3%	36.8	10.3%	6.0	1.7%	357.9
1997 ^r	210.3	63.2%	48.7	14.6%	35.0	10.5%	33.1	9.9%	5.8	1.7%	332.9
1998 ^r	183.5	64.2%	42.5	14.9%	30.1	10.5%	24.2	8.5%	5.7	2.0%	285.9
1999 ^r	197.9	64.3%	45.8	14.9%	31.4	10.2%	27.6	9.0%	5.1	1.7%	307.7
2000 ^r	211.0	66.5%	47.2	14.9%	28.7	9.0%	25.3	8.0%	5.3	1.7%	317.5
2001 ^r	204.0	66.7%	45.8	15.0%	28.3	9.2%	23.5	7.7%	4.6	1.5%	306.1
2002 ^r	213.1	67.7%	47.6	15.1%	26.0	8.3%	24.0	7.6%	4.0	1.3%	314.7
2003 ^r	198.9	68.6%	43.7	15.1%	20.7	7.1%	22.8	7.9%	3.8	1.3%	290.0
2004 ^r	203.2	68.5%	44.7	15.1%	21.2	7.1%	24.1	8.1%	3.7	1.2%	296.9
2005 ^r	198.5	68.8%	43.6	15.1%	20.7	7.2%	22.6	7.8%	3.0	1.0%	288.4
2006 ^r	228.3	68.6%	50.2	15.1%	23.8	7.1%	27.1	8.1%	3.2	1.0%	332.6
2007 ^r	224.6	68.5%	49.4	15.1%	23.4	7.1%	28.4	8.6%	2.3	0.7%	328.1
2008 ^r	221.2	67.6%	48.7	14.9%	23.1	7.1%	31.8	9.7%	2.4	0.7%	327.1
2009 ^r	232.6	66.8%	51.2	14.7%	24.3	7.0%	37.8	10.9%	2.2	0.6%	348.2
2010 ^r	201.0	67.6%	44.2	14.9%	21.0	7.1%	28.7	9.7%	2.3	0.8%	297.2
2011 ^p	197.3	69.1%	43.4	15.2%	20.6	7.2%	22.5	7.9%	1.6	0.6%	285.4

LPG USE
4.0%

Liquefied petroleum gas (LPG), (propane), use decreased 4.0 percent in 2011.

Agriculture sector numbers do not include agricultural processing plants; these are classified in the commercial sector.

^a Starting with 2005 data, the SEO discontinued a per-acre approach to gathering fuel data for the agriculture sector and substituted data from the Wisconsin Department of Revenue and from the federal National Agriculture Statistics Service (NASS).

^p Preliminary estimates.

^r Revised.

NA - Not available.

Source: U.S. Department of Energy, Form EIA-25, *Prime Supplier's Monthly Report* (1974-2011) and Form EIA-782C, *Monthly Report of Petroleum Products Sold into States for Consumption* (1983-2011) http://www.eia.gov/oil_gas/petroleum/data_publications/prime_supplier_report/psr.html; National Agricultural Statistics Service, unpublished data (2005-2011); Wisconsin Department of Revenue, *Monthly Motor Fuel Consumption Report* (2008-2011).